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|---|---|---|--|--|
| FORM PTO-1390 (Modified)<br>(REV 11-98)   |   | U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE |  | ATTORNEY'S DOCKET NUMBER<br><b>09669/006001</b>                |
| TRANSMITTAL LETTER TO THE UNITED STATES<br>DESIGNATED/ELECTED OFFICE (DO/EO/US)<br>CONCERNING A FILING UNDER 35 U.S.C. 371  |   |   |  | U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR<br><b>09/913819</b> |
| INTERNATIONAL APPLICATION NO.<br><b>PCT/FR00/00423</b>  | INTERNATIONAL FILING DATE<br><b>February 18, 2000</b> | PRIORITY DATE CLAIMED<br><b>February 18, 1999</b>       |  |  |
| TITLE OF INVENTION<br><b>MODULE AND IDENTIFICATION METHOD IN A FIRST AND SECOND TELECOMMUNICATION NETWORKS</b>  |   |   |  |  |
| APPLICANT(S) FOR DO/EO/US<br><b>Rene BONGERS</b>  |   |   |  |  |
| Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:   |   |   |  |  |
| <p>1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a filing under 35 U.S.C. 371.</p> <p>2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a filing under 35 U.S.C. 371.</p> <p>3. <input checked="" type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).</p> <p>4. <input checked="" type="checkbox"/> A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.</p> <p>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371 (c) (2))           <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau).</li> <li>b. <input checked="" type="checkbox"/> has been transmitted by the International Bureau.</li> <li>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ul> </p> <p>6. <input checked="" type="checkbox"/> A translation of the International Application into English (35 U.S.C. 371(c)(2)).</p> <p>7. <input checked="" type="checkbox"/> A copy of the International Search Report (PCT/ISA/210).</p> <p>8. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))           <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau).</li> <li>b. <input type="checkbox"/> have been transmitted by the International Bureau.</li> <li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li>d. <input checked="" type="checkbox"/> have not been made and will not be made.</li> </ul> </p> <p>9. <input type="checkbox"/> A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</p> <p>10. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)). (<i>unsigned</i>)</p> <p>11. <input type="checkbox"/> A copy of the International Preliminary Examination Report (PCT/IPEA/409).</p> <p>12. <input type="checkbox"/> A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).</p> |   |   |  |  |
| Items 13 to 20 below concern document(s) or information included:   |   |   |  |  |
| <p>13. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</p> <p>14. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</p> <p>15. <input checked="" type="checkbox"/> A <b>FIRST</b> preliminary amendment.</p> <p>16. <input type="checkbox"/> A <b>SECOND</b> or <b>SUBSEQUENT</b> preliminary amendment.</p> <p>17. <input type="checkbox"/> A substitute specification.</p> <p>18. <input type="checkbox"/> A change of power of attorney and/or address letter.</p> <p>19. <input checked="" type="checkbox"/> Certificate of Mailing by Express Mail</p> <p>20. <input checked="" type="checkbox"/> Other items or information:</p>   |   |   |  |  |
| <p><b>French Search Report (1 pg.)</b></p>  <p><b>22511</b><br/>PATENT TRADEMARK OFFICE</p>   |   |   |  |  |

| U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR<br><b>09/913819</b>   | INTERNATIONAL APPLICATION NO.<br><b>PCT/FR00/00423</b> | ATTORNEY'S DOCKET NUMBER<br><b>09669/006001</b>                            |  |              |      |              |           |   |                           |                    |         |   |                         |  |  |  |  |                                      |  |  |                 |  |
|--|--|--|--|--------------|------|--------------|-----------|---|---------------------------|--------------------|---------|---|-------------------------|--|--|--|--|--------------------------------------|--|--|-----------------|--|
| 21. The following fees are submitted.:<br><br><b>BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)) :</b>   |  | <b>CALCULATIONS PTO USE ONLY</b>   |  |              |      |              |           |   |                           |                    |         |   |                         |  |  |  |  |                                      |  |  |                 |  |
| <input type="checkbox"/> Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO ..... \$970.00<br><input checked="" type="checkbox"/> International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO ..... \$840.00<br><input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO ..... \$690.00<br><input type="checkbox"/> International preliminary examination fee paid to USPTO (37 CFR 1.482) but all claims did not satisfy provisions of PCT Article 33(1)-(4) ..... \$670.00<br><input type="checkbox"/> International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(1)-(4) ..... \$96.00 |  |  |  |              |      |              |           |   |                           |                    |         |   |                         |  |  |  |  |                                      |  |  |                 |  |
| <b>ENTER APPROPRIATE BASIC FEE AMOUNT =</b>  |  | <b>\$840.00</b>  |  |              |      |              |           |   |                           |                    |         |   |                         |  |  |  |  |                                      |  |  |                 |  |
| Surcharge of <b>\$130.00</b> for furnishing the oath or declaration later than months from the earliest claimed priority date (37 CFR 1.492 (e)).  |  | <input type="checkbox"/> 20 <input type="checkbox"/> 30 <b>\$0.00</b>      |  |              |      |              |           |   |                           |                    |         |   |                         |  |  |  |  |                                      |  |  |                 |  |
| <table border="1"> <thead> <tr> <th>CLAIMS</th> <th>NUMBER FILED</th> <th>NUMBER EXTRA</th> <th>RATE</th> </tr> </thead> <tbody> <tr> <td>Total claims</td> <td>27 - 20 =</td> <td>7</td> <td>x \$18.00    <b>\$126.00</b></td> </tr> <tr> <td>Independent claims</td> <td>2 - 3 =</td> <td>0</td> <td>x \$78.00    <b>\$0.00</b></td> </tr> <tr> <td colspan="3">Multiple Dependent Claims (check if applicable).</td> <td><input type="checkbox"/> <b>\$0.00</b></td> </tr> <tr> <td colspan="3"><b>TOTAL OF ABOVE CALCULATIONS =</b></td> <td><b>\$966.00</b></td> </tr> </tbody> </table>  |  | CLAIMS   | NUMBER FILED                           | NUMBER EXTRA | RATE | Total claims | 27 - 20 = | 7 | x \$18.00 <b>\$126.00</b> | Independent claims | 2 - 3 = | 0 | x \$78.00 <b>\$0.00</b> | Multiple Dependent Claims (check if applicable). |  |  | <input type="checkbox"/> <b>\$0.00</b> | <b>TOTAL OF ABOVE CALCULATIONS =</b> |  |  | <b>\$966.00</b> |  |
| CLAIMS   | NUMBER FILED   | NUMBER EXTRA   | RATE                                   |              |      |              |           |   |                           |                    |         |   |                         |  |  |  |  |                                      |  |  |                 |  |
| Total claims   | 27 - 20 =  | 7  | x \$18.00 <b>\$126.00</b>              |              |      |              |           |   |                           |                    |         |   |                         |  |  |  |  |                                      |  |  |                 |  |
| Independent claims   | 2 - 3 =  | 0  | x \$78.00 <b>\$0.00</b>                |              |      |              |           |   |                           |                    |         |   |                         |  |  |  |  |                                      |  |  |                 |  |
| Multiple Dependent Claims (check if applicable).   |  |  | <input type="checkbox"/> <b>\$0.00</b> |              |      |              |           |   |                           |                    |         |   |                         |  |  |  |  |                                      |  |  |                 |  |
| <b>TOTAL OF ABOVE CALCULATIONS =</b>   |  |  | <b>\$966.00</b>                        |              |      |              |           |   |                           |                    |         |   |                         |  |  |  |  |                                      |  |  |                 |  |
| Reduction of 1/2 for filing by small entity, if applicable. Verified Small Entity Statement must also be filed (Note 37 CFR 1.9, 1.27, 1.28) (check if applicable).  |  | <input type="checkbox"/> <b>\$0.00</b>                                     |  |              |      |              |           |   |                           |                    |         |   |                         |  |  |  |  |                                      |  |  |                 |  |
| <b>SUBTOTAL =</b>  |  | <b>\$966.00</b>  |  |              |      |              |           |   |                           |                    |         |   |                         |  |  |  |  |                                      |  |  |                 |  |
| Processing fee of <b>\$130.00</b> for furnishing the English translation later than months from the earliest claimed priority date (37 CFR 1.492 (f)).   |  | <input type="checkbox"/> 20 <input type="checkbox"/> 30    + <b>\$0.00</b> |  |              |      |              |           |   |                           |                    |         |   |                         |  |  |  |  |                                      |  |  |                 |  |
| <b>TOTAL NATIONAL FEE =</b>  |  | <b>\$966.00</b>  |  |              |      |              |           |   |                           |                    |         |   |                         |  |  |  |  |                                      |  |  |                 |  |
| Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31) (check if applicable).  |  | <input type="checkbox"/> <b>\$0.00</b>                                     |  |              |      |              |           |   |                           |                    |         |   |                         |  |  |  |  |                                      |  |  |                 |  |
| <b>TOTAL FEES ENCLOSED =</b>   |  | <b>\$966.00</b>  |  |              |      |              |           |   |                           |                    |         |   |                         |  |  |  |  |                                      |  |  |                 |  |
|  |  | <b>Amount to be:<br/>refunded</b> <b>\$</b>                                |  |              |      |              |           |   |                           |                    |         |   |                         |  |  |  |  |                                      |  |  |                 |  |
|  |  | <b>charged</b> <b>\$</b>   |  |              |      |              |           |   |                           |                    |         |   |                         |  |  |  |  |                                      |  |  |                 |  |

- A check in the amount of **\$966.00** to cover the above fees is enclosed.
- Please charge my Deposit Account No. \_\_\_\_\_ in the amount of \_\_\_\_\_ to cover the above fees. A duplicate copy of this sheet is enclosed.
- The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. **50-0591** A duplicate copy of this sheet is enclosed.

**NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.**

SEND ALL CORRESPONDENCE TO:

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SIGNATURE  
**Jonathan P. Osha**  
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33,986  
REGISTRATION NUMBER  
**811761**  
DATE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Bongers, Rene                                  Art Unit :  
Serial No.:    Examiner :  
Filed :  
Title : MODULE AND IDENTIFICATION METHOD IN A FIRST AND SECOND  
    TELECOMMUNICATION NETWORKS

Assistant Commissioner for Patents  
Washington, DC 20231

**PRELIMINARY AMENDMENT**

Dear Sir:

Before examining the referenced application on the merits, please amend the application as outlined below:

**IN THE SPECIFICATION**

1. On page 1, line 13, please insert the sub-heading --Field of the Invention-- above the paragraph which begins "The present invention."
2. On page 1, line 23, please insert the sub-heading --Background of the Invention-- above the paragraph that begins "In this field."
3. On page 3, line 19, please insert the sub-heading --Summary of the Invention-- above the paragraph that begins "According to one first object."
4. On page 5, line 6, please insert the sub-heading --Brief Description of the Drawings-- above the paragraph that begins "Figure 1 is a diagram."
5. On page 5, line 13, please insert the sub-heading --Detailed Description-- above the paragraph that begins "Figure 1 shows the territory."
6. On page 19, line 10, please insert --What is claimed is:-- after the heading "**CLAIMS.**"

IN THE CLAIMS

Please amend the claims as outlined below. A marked-up version, illustrating the changes, of the claims is attached as Appendix A.

1. (Amended) A method for identifying a subscriber in a first and a second telecommunication network, wherein the subscriber possesses a mobile telephone station having a subscriber identification module, said subscriber identification module comprising means to be identified on the first telecommunication network under a first identity, as well as means to be identified on the second telecommunication network under a second identity, said method comprising:

defining the first telecommunication network as a priority with respect to the second telecommunication network;

checking to see whether the mobile telephone station is inside a coverage field of the first telecommunication network when the subscriber identification module is currently identified on the second telecommunications network, said checking being made by regularly re-initializing the mobile telephone station; and

automatically identifying the subscriber identification module on the first telecommunication network under the first identity when the mobile telephone station is in the coverage field of the first telecommunication network.

2. (Amended) The method according to claim 1, wherein the identifying the subscriber identification module on the first telecommunication network is performed automatically, even if the mobile telephone station is still located in a coverage field of the second communication network.

3. (Amended) The method according to claim 1, wherein the checking is initiated by a program in the subscriber identification module, said program comprising a re-initialization

command.

4. (Amended) The method according to claim 3, further comprising:

deleting contents of a localization element in said subscriber identification module prior to said re-initializing the mobile telephone station.

5. (Amended) The method according to claim 1, further comprising:

identifying the subscriber identification module on the second telecommunication network under the second identity, when the mobile telephone station leaves the coverage field of the first telecommunication network.

6. (Amended) The method according to claim 5, wherein the identifying the subscriber identification module on the second telecommunication network under the second identity further comprises:

re-initializing said mobile telephone station after the second identity is activated by an identity activation element in said subscriber identification module when a loss of coverage of the first telecommunication network is observed.

7. (Amended) The method according to claim 6, further comprising:

defining, prior to said re-initializing, the second telecommunication network in a network selection element as a priority with respect to other telecommunication networks and as secondary with respect to the first telecommunication network.

8. (Amended) The method according to claim 6, wherein the loss of coverage is established by means of a loss of coverage control element.

9. (Amended) The method according to claim 8, wherein the loss of coverage control element is activated after each information update of a localization element by the mobile telephone station.

10. (Amended) The method according to claim 8, wherein the loss of coverage control element is activated periodically by the subscriber identification module.

11. (Amended) The method according to claim 10, wherein the loss of coverage control element uses an information command to provide location information.

12. (Amended) The method according to claim 1, wherein the identifying the subscriber identification module on the first telecommunication network under the first identity further comprises:

checking to see if the subscriber identification module is identified on the first telecommunication network under the second identity;

activating the first identity, if the subscriber identification module is identified on the first telecommunication network under the second identity; and

re-initializing the mobile telephone station after activating the first identity.

13. (Amended) The method according to claim 12, wherein the checking is effected with the aid of a localization element for localizing the subscriber identification module.

14. (Amended) The method according to claim 1, wherein the re-initialising the mobile telephone station is visible to the subscriber.

15. (Amended) The method according to claim 1, wherein the defining the first telecommunication network as priority with respect to the second telecommunication network is accomplished by means of a network selection element.

16. (Amended) The method according to claim 1, wherein the re-initializing the mobile telephone station comprises initializing the subscriber identification module and recording on a network.

17. (Amended) A subscriber identification module for use with a mobile telephone station comprising:

means for being identified on a first telecommunication network under a first identity and on a second telecommunications network under a second identity;

means for defining the first telecommunication network as priority with respect to the second telecommunication network;

means for checking if the mobile telephone station enters a coverage field of the first telecommunication network when the subscriber identification module is identified on the second telecommunication network under a second identity, said checking means being able to regularly re-initialize the mobile telephone station; and

means for ensuring said subscriber identification module is automatically identified on the first telecommunications network under the first identity when the mobile telephone station enters the coverage field of the first telecommunication network.

18. (Amended) The subscriber identification module according to claim 17, wherein the identification means is able to identify said subscriber identification module automatically without the need for subscriber intervention on the first telecommunication network under the first identity when the mobile telephone station enters the coverage field of the first telecommunications network, even if the mobile telephone station is still located in a coverage field of the second telecommunication network.

19. (Amended) The subscriber identification module according to claim 17, wherein said checking means is activated by a program in the subscriber identification module, said program comprising a re-initialization command.

20. (Amended) The subscriber identification module according to claim 17, further

comprising means for deleting contents of a localisation element included in the subscriber identification module.

21. (Amended) The subscriber identification module according claim 17, wherein the means for identifying on the second telecommunication network under the second identity is capable of being performed without requiring any user intervention.

22. (Amended) The subscriber identification module according to claim 17, further comprising an element for activating an identity of the subscriber identification module.

23. (Amended) The subscriber identification module according to claim 17, further comprising a network selection element capable of defining the second telecommunication network as priority with respect to other telecommunication networks and secondary with respect to the first telecommunication network.

24. (Amended) The subscriber identification module according to claim 17, further comprising a loss of coverage of a network control element.

25. (Amended) The subscriber identification module according to claim 24, wherein the loss of coverage of a network control element is capable of being activated after each information update of a localization element by the mobile telephone station.

26. (Amended) The subscriber identification module according to claim 24, wherein the loss of coverage of a network control element is capable of being activated periodically by said subscriber identification module.

27. (Amended) The subscriber identification module according to claim 25, wherein the loss of coverage of a network control element uses an information command to provide location information.

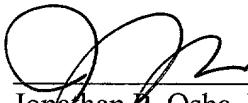
**Remarks**

The amendments to the specification and the claims are made to conform to the requirements for patent applications in the United States. No new matter was introduced by such amendments. Favorable consideration of this application is respectfully requested.

Please apply any charges not covered, or any credits, to Deposit Account 500-591  
(Reference No. 09669/006001).

Respectfully submitted,

Date: 8/17/01



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## APPENDIX A – MARKED-UP VERSION OF THE CLAIMS

1. Method A method for identifying a subscriber in a first (11) and a second (12) telecommunications network, wherein according to which the subscriber possesses a mobile telephone station (MS) fitted withhaving a subscriber identification module (SIM), said subscriber identification module including comprising means to be identified on the first telecommunications network under a first identity (IMS11), as well as means to be identified on a the second telecommunications network (12) under a second identity (IMS12), characterised in that said methods comprises the following stages according to whichcomprising:

defining the first telecommunications network (11) is defined as a priority with respect to the second telecommunications network (12);

when the subscriber identification module (SIM) is identified in the second telecommunications network (12), a check is regularly madechecking to see if whether the mobile telephone station (MS) is inside the a coverage field of the first telecommunications network (11), when the subscriber identification module is currently identified on the second telecommunications network, said checking being made by regularly re-initialisinginitializing the mobile telephone station (MS); and

the mobile telephone station (MS) is in the coverage field of the first telecommunications network (11);

identifying the subscriber identification module (SIM) is automatically identified inon the first telecommunications network (11) under its the first identity (IMS11) without requiring subscriber intervention when the mobile telephone station is in the coverage field of the first telecommunication network.

2. Method The method according to claim 1, characterised in thatwherein the identifying the subscriber identification module (SIM) is automatically identified on the first telecommunications network (11) is performed automatically, even if the mobile telephone station (MS) is still located in the a coverage field of the second communication network (12).

3. Method The method according to one of the preceding claimsclaim 1, characterised in thatwherein verification the checking is initiated by a command or programme in the subscriber identification module (SIM), said programme comprising a re-initialisation initialization

command (REFRESH).

4. Method The method according to one of the preceding claimsclaim 3, characterised in that it comprises an additional stage according to which further comprising:

deleting contents of a localization element in said subscriber identification module prior to said re-initializingsation the mobile telephone station;  
the contents of a localisation element (LOCI) in said module (SIM) are deleted.

5. Method The method according to one of the preceding claimsclaim 1, characterised in that it comprises the additional stages according to which further comprising:

the mobile telephone station (MS) leaves the coverage field of the first telecommunications network (11),

identifying the subscriber identification module (SIM) is automatically identified in on the second telecommunications network (12) under its the second identity (IMS12) without action needing to be taken by the subscriber, when the mobile telephone station leaves the coverage field of the first telecommunication network.

6. Method The method according to claim 5, characterised in that the stage forwherin automatically the identifying the subscriber identification module (SIM) with on the second telecommuniction network (12) under its the second identity (IMS12) further comprises comprises the additional stages according to which:

- a loss of coverage of the first network (11) is observed,
- by means of said module (SIM) an identity activation element (ACTIV) is initiated and thus the second identity (IMS12) is activated,

re-initializing said mobile telephone station station (MS) is reinitialised after the second identity is activated by an identity activation element in said subscriber identification module when a loss of coverage of the first telecommunication network is observed.

7. Method The method according to claim 6, eharaeterised in that it comprises an additional stage according to whichfurther comprising:

defining, prior to said re-initializingsation, the second telecommunication network (12) is defined in a networks selection element (PLMN2)

as a priority with respect to other telecommunication networks and as secondary with respect to the first telecommunication network (11).

8. Method The method according to claim 6, characterised in that wherein the loss of coverage is established by means of a loss of coverage control element (CNTRL).

9. Method The method according to claim 8, characterised in that wherein the loss of coverage control element (CNTRL) is initiated activated after each information updating of a localisation localization element (LOCI) by the mobile telephone station (MS).

10. Method The method according to claim 8, characterised in that wherein said the loss of coverage control element (CNTRL) is initiated activated periodically by said the subscriber identification module (SIM).

11. Method The method according to claim 10, characterised in that wherein said the loss of coverage control element (CNTRL) uses an information command (PROVIDELOCALINFO) to provide location information.

12. Method The method according to one of the preceding claims claim 1, characterised in that the stage for wherein the automatically identifying the subscriber identification module (SIM) on the first telecommunications network (11) under its the first identity (IMS11) comprises the additional stages according to which further comprises:

the subscriber identification module (SIM) is identified in the first telecommunications network (11) by means of the second identity (IMS12);

a checking is made to see if the subscriber identification module (SIM) is identified on the first telecommunication network (11) by means of its under the second identity (IMS12);

activating the first identity, (IMS11) is activated, if the subscriber identification module is identified on the first telecommunication network under the second identity; and

a phase for reinitializing the mobile telephone station (MS) is relaunched after activating the first identity.

13. Method The method according to claim 12, characterised in that verification wherein the checking is effected with the aid of an localization element (LOCI) for localising the subscriber identification module (SIM).

14. Method The method according to one of the preceding claimsclaim 1, characterised in thatwherein re-initialisationthe re-initialising the mobile telephone station is visible to the usersubscriber.

15. Method The method according to one of the preceding claimsclaim 1, characterised in thatwherein the defining the first telecommunications network (11) is defined as priority with respect to the second telecommunications network (12)is accomplished by means of a networks selection element (PLMN2).

16. Method The method according to one of the preceding claimsclaim 1, characterised in that the phase for wherein the re-initialising initializing the mobile telephone station (MS) comprises a phase for initialising initializing the subscriber identification module (SIM) and a phase for recording on a network.

17. Subscriber A subscriber identification module (SIM) intended to be associated for use with a mobile telephone station (MS) including comprising:-

□means to be for being identified on a first telecommunications network (11) under a first identity (IMS11);

□means to be identified and on a second telecommunications network (12) under a second identity (IMS12); and;

characterised in that it further includes :-

means to for defineing the first telecommunications network (11) as priority with respect to the second telecommunications network (12);

means to for regularly checking if the mobile telephone station (MS) enters the a coverage field of the first telecommunication network (11) when the subscriber identification module (SIM) is identified on the second telecommunications network (12) under its a second identity (IMS12), said checking means being able to regularly reinitialise re-initialize the mobile telephone station (MS); and

means to for ensuring said subscriber identification module (SIM) is automatically identified on the first telecommunications network (11) under its the first identity (IMS11) when the mobile telephone station (MS) enters the coverage field of the first telecommunications network (11).

18. Subscriber The subscriber identification module (SIM) according to claim 17, characterised in that wherein the identification means are able to identify said subscriber identification module (SIM) automatically without the need for subscriber intervention in-on the first telecommunications network (11) under its the first identity (IMS11) when the mobile telephone station (MS) enters the coverage field of the first telecommunications network (11), even if the mobile telephone station (MS) is still located in the a coverage field of the second telecommunication network (12).

19. Subscriber The subscriber identification module (SIM) according to claim 17 or 18, characterised in that wherein said checking means are initiated activated by a command or programme in the subscriber identification module (SIM), said programme comprising a re-initialisation initialization command (REFRESH).

20. Subscriber The subscriber identification module (SIM) according to one of claims 17 to 19, characterised in that it further comprising comprises means for deleting the contents of a localisation element (LOCI) included in the subscriber identification module (SIM).

21. Subscriber The subscriber identification module (SIM) according to one of claims 17 to 20, characterised in that it comprises wherein the means to before automatically identifying in-on the second telecommunication network (12) under its the second identity is capable of being performed (IMS12) without requiring any user intervention.

22. Subscriber The subscriber identification module (SIM) according to one of claims 17 to 21, characterised in that it comprises further comprising an element (ACTIV) for activating an identity of the subscriber identification module (IMSI).

23. Subscriber The subscriber identification module (SIM) according to one of claims 17 to 22, characterised in that it comprises further comprising a networks selection element (PLMN2) capable of able to defining the second telecommunication network (12) as priority with respect to other telecommunication networks and secondary with respect to the first telecommunication network (11).

24. Subscriber The subscriber identification module (SIM) according to one of claims 17 to 23, characterised in that it comprises further comprising a loss of coverage of a network control element (CNTRL) of a network.

25. Subscriber The subscriber identification module (SIM) according to claim 23 or 24, characterised in that wherein the loss of coverage of a network control element (CNTRL) is able

~~to be initiated capable of being activated after each information update~~ing of a localisation localization element (LOCI) by the mobile telephone station (MS).

26. Subs~~criber~~ The subscriber identification module (SIM) according to claim 23~~24~~, characterised in thatwherein the loss of coverage of a network control element (CNTRL) is able to be initiatedcapable of being activated periodically by said subscriber identification module (SIM).

27. Subs~~criber~~ The subscriber identification module (SIM) according to claim 25, characterised in thatwhercin the loss of coverage of a network control element (CNTRL) uses an information command (PROVIDELOCALINFO) to provide location information.

g/pb

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10 MODULE AND IDENTIFICATION METHOD IN A FIRST AND SECOND  
TELECOMMUNICATION NETWORKS

15 The present invention concerns a method for identifying  
a subscriber in a first and a second telecommunication  
network according to which the subscriber has a mobile  
telephone station equipped with a subscriber identification  
module, said identification module comprising both means to  
be identified on the first telecommunications network under  
a first identity and means to be identified on the second  
telecommunications network under a second identify.

20 The invention is in particular preferably applied to  
the field of mobile telephones.

25 In this field, the subscriber is currently able to use  
his mobile telephone station on a network for which he has  
paid a subscription. The only constraint is that the mobile  
telephone station supports the frequencies of the  
telecommunications network the subscriber wishes to use :  
most countries operate on 900 MHz (the initial GSM), certain  
countries also have networks at 1800 MHz (DCS 1800), certain  
30 countries (The United States) solely operate on 1900 MHz or  
even use frequencies belonging to networks based on  
satellites. Any country is covered by operators who each run

a telecommunications network. Each network fully or partially covers the country and thus comprises an operational territory. One concept known as a "roaming" concept enables an operator covering a small portion in any 5 country to offer his subscribers a wider network cover access for the country in question or enable a subscriber to make a 'phone call when his mobile telephone station operates outside his own country. Agreements concerning said concept are made between two operators on payment of a fixed 10 sum. The first operator exploits the first telecommunications network, whereas the second, known as the partner, concludes roaming agreements with a third operator which exploits the second telecommunications network. In this case, the subscriber identification module 15 of the mobile telephone station comprises two identities for respectively being able to be identified on the first and second networks and thus corresponding to two respective subscriber accounts.

One element of the prior art described in the patent 20 document published under the number EP 0 579 655 points out that, when a subscriber on the first network can no longer make a call on account of a loss of coverage on his network, he manually selects his partner account by using for example a menu from his mobile telephone station. Said method is not 25 the best possible insofar as firstly the subscriber cannot receive a call or cannot select the selection time of the second account, this selection proving to often seem complicated to said subscriber, and finally said subscriber is unable to know when he can again select the first network 30 on which he is a subscriber, that is when his network again covers the territory on which his mobile telephone station is located.

Also, a technical problem to be solved via the object of the invention is to provide a method for identifying a subscriber in a first and second telecommunications network in which said subscriber has a mobile telephone station equipped with a subscriber identification module, said subscriber identification module comprising means to be identified on the first telecommunications networks under a first identity, as well as means to be identified on the second telecommunications network under a second identity, and also a subscriber identification module for implementing said method which enable a subscriber to firstly himself control these changes of subscriber accounts, and secondly allow a subscriber to move simply from one network to another when the coverage of a network is found again, and finally allowing moving from a second network to a first network on which the subscriber is subscribed as a user as soon as his station enters the first network, even if said station is also in the second network.

According to one first object of the present invention, one solution to the above-mentioned technical problem is characterised in that said method comprises the following stages in which :

- the first telecommunications network is defined as priority with respect to the second telecommunications network,
- when the subscriber identification module is identified in the second telecommunications network, a check is regularly made to see if the mobile telephone station enters the coverage field of the first telecommunications network, said check being made by regularly re-initialising the mobile telephone station,
- the mobile telephone station enters the coverage

field of the first telecommunications network,

- the subscriber identification module is automatically identified on the first telecommunications network under its first identity without requiring subscriber intervention.

5 According to a second object of the invention, this solution is characterised in that the subscriber identification module further includes :

10 - means for defining the first telecommunications network as priority with respect to the second telecommunications network,

15 - means for regularly checking if the mobile telephone station enters the coverage field of the first network when the subscriber identification module is identified on the second telecommunications network under its second identify, said checking means being able to regularly re-initialise the mobile telephone network,

20 - means to ensure said subscriber identification module is automatically identified without any subscriber intervention in the first telecommunications network under its first identity when the mobile telephone station enters the coverage field of the first telecommunications network.

25 Also, as it shall be seen in detail later, the method of the invention makes it possible for the subscriber to simply and clearly control this roaming concept. The subscriber telecommunications network is defined as priority with respect to the second network. Thus, when the subscriber identification method is identified in the coverage field of the second network and passes into the coverage field of the first network, said module is automatically identified with respect to the priority network, that is with respect to the first network, even if it is still in the coverage field of the second network. The

user does not have to do anything.

The following description with reference to the accompanying drawings, given by way of non-restrictive examples shall clearly describe what invention consists of  
5 and how it can be embodied.

Figure 1 is a diagram of the coverage network of a country.

10 Figure 2 is a diagram of a mobile telephone network located in the coverage fields of various networks of the country of figure 1.

Figure 3 is a diagram of the mobile telephone station of figure 2.

15 Figure 1 shows the territory of a country 10 and its network coverage. The territory of the country 10 is covered by at least two mobile telephone telecommunications networks, a first network 11 and a second network 12 managed by two respective operators and covering two respective geographical zones. In the example of Figure 1, said geographical zones have an intersection region 13.

20 A telecommunications network within the mobile telephone field, based for example on the GSM or DCS standards, generally comprises a switching centre MSC for mobile phones, a nominal localisation register HLR and a welcome localisation register VLR. The nominal localisation register HLR firstly memorises the personal details of each such subscriber, such as the subscriber identity IMSI used by the network or a subscriber directory number MSISDN corresponding to the number of said subscriber's mobile telephone station on which said subscriber can be called,  
25 and secondly as regards each subscriber said register HLR memorises the welcome localisation register VLR where the subscriber is registered, even if a subscriber is connected  
30

on another network. Each identity IMSI comprises a code MCC of the subscriber country of residence, a code MNC of the nominal network of the subscriber, and a code of the nominal localisation register HLR in his network. Thus, these three  
5 fields make it possible to determine in an unparalleled manner throughout the world both the subscriber nominal network and his nominal localisation register HLR. The switching centre MSC enters into dialogue with the welcome localisation register VLR to manage the mobility of  
10 subscribers, whereas said register VLR memorises subscription data in a geographical zone, also known as a localisation zone. The data memorised by said welcome localisation register VLR are similar to the data of the nominal localisation register HLR, but only concern the  
15 mobile subscribers present in the zone in question.

A localisation zone is identified by a zone identification element LAI. This element comprises a code MCC of the country where said localisation zone is situated, a code MNC of the network covering said zone, and finally an identification code LAC of said zone.  
20

A subscriber possessing a mobile telephone station MS has a first subscriber account known as a nominal account managed by the operator of the first telecommunications network 11, and a second subscriber account known as a partner account managed by a partner operator. The partner operator has an international roaming agreement with a third operator managing the second network 12 or said partner operator manages said second network. The first network 11 is known as the nominal network of the first subscriber account. The partner account is attached to a partner network of the partner operator and is known as the nominal network of the partner account (not shown).  
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The main interest is the case where the second network is managed by the third operator. Of course the partner operator can have other international roaming agreements with other operators managing other networks.

5       The subscriber mobile telephone station MS comprises a subscriber identification module SIM and a transmitter-receiver known as a mobile set. This module is particularly described in the standards GSM11.11 and GSL11.14 published by the ETSI and whose contents are incorporated with the  
10 present preamble quoted as a reference.

Said subscriber identification module includes in particular a control element 21 (for example a central processing unit CPU), a rewriteable memory 23 (for example EEPROM), a non-rewriteable memory 24 (ROM), and a contact  
15 block 25 for establishing electric connection with the mobile telephone station MS.

Said module SIM firstly includes two elements corresponding to two respective identities IMSI1 AND IMSI2, and secondly a element LOCI for localising said station MS and also a network selection element PLMN2. These elements are in particular files included in the rewriteable memory 23 of said module. The two identities respectively correspond to said nominal and partner accounts. The element PLMN2 for selecting the networks is attached to the partner account. In our example, said networks selection element PLMN2 is also attached to the subscriber account.  
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When the subscriber switches on his mobile telephone station MS, an initialisation phase starts. This phase for initialising the mobile telephone station MS basically comprises a phase for initialising the module SIM and a phase for recording on a selected network.  
30

The phase for initialising the module SIM mainly

comprises the stages in which :

the mobile telephone station MS reads the active identity IMSI in the subscriber identification module SIM,

the mobile telephone station MS looks for and selects  
5 an accessible network, this search being made first on the old network on which the mobile telephone station MS was recorded by means of a temporary identity TIMSI situated in the localisation element LOCI and on the nominal network of the active identity, then by means of the network selection element PLMN2.

10 The recording phase particularly includes the stage in which :

15 the mobile telephone station MS is recorded on the selected network corresponding to one identification by means of the active identity IMSI on said selected network.

20 The temporary identity TIMSI is the one used and recorded on the welcome localisation register VLR where the subscriber is recorded prior to switching off or removal of the module SIM of a mobile telephone station.

25 During the recording phase, the station MS sends the switching centre MSC a localisation request. From the active identity IMSI, the centre is able to determine the nominal localisation register HLR on which said station depends. The switching centre MSC starts an authentication procedure so as to verify the legality of the active identity. Said register HLR then sends all the characteristics concerning the mobile telephone station MS to the welcome localisation recorder and memorises the identity of said welcome localisation recorder. The mobile telephone station MS stores the identity LAI of the localisation zone in which it is situated in the localisation element LOCI of its subscriber identification module SIM, as well as its

temporary identity TIMSI. This storage corresponds to an updating of localisation information.

5 A mobile telephone station MS can be located either in the coverage field of the first network 11 or in the second network 12. In the example of the figure where the two networks have an intersection region 13, the mobile telephone station MS can also be situated in said region 13.

10 As shown on Figure 2, when the telephone mobile station is located in the coverage field of the second network 12, the subscriber identification module SIM is identified on the second telecommunications network 12 under a second identity IMSI2 and thus uses its partner account, said second identity IMSI2 corresponding to said account. In this case, said second identity IMSI2 is the temporary 15 identity. As described later, this is only valid when the mobile telephone station MS is no longer located in the field of the first network 11.

20 Also, when the mobile telephone station MS enters the coverage field of the first telecommunications network 11, the subscriber identification module is automatically identified on the first telecommunications network 11 under its first identity IMSI1 without needing subscriber intervention, the same applying even if the mobile telephone station is still located in the field of the second network 25 12.

30 When the subscriber identification module SIM is identified in the second telecommunications network, a check is regularly made to see if the mobile telephone station enters the coverage field of the first telecommunications network 11. The checking frequency can be periodic or random. Preferably, verification is carried out every fifteen minutes.

5 Verification is made by regularly re-initialising the mobile telephone station MS. The mobile telephone station still remains switched on and consequently said re-initialisation can be clearly observed with respect to the subscriber.

10 Verification is initiated by a command or programme included in the subscriber identification module SIM. Said programme comprises a re-initialisation command, for example the command REFRESH described in the standard GSL11.14 published by the ETSI. Advantageously, prior to said re-initialisation, the contents of the localisation element LOCI of said module SIM are deleted.

15 Of course said verification based on a re-initialisation operation is only one way enabling said identification module SIM to be automatically identified on the first network without requiring subscriber intervention. Said module SIM may include other elements such as specific programmes using no re-initialisation, but obtaining the same result as in the preceding verification.

20 At the time of re-initialisation, the active identity is read in the SIM module. Said identity is the identity IMLSI2 corresponding to the partner account. Accordingly as previously described, re-initialisation of the mobile telephone station MS makes it possible to launch 25 a search starting on the old network on which the mobile telephone station MS was recorded. The search is carried out by means of the localisation element LOCI. As the contents of the latter had been deleted, the search is carried out by the network corresponding to the active identity, in this 30 instance the second IMSI2 identity. The corresponding network is the partner network. If the mobile telephone station MS is not located in said network, the search

continues on the other networks.

Once this search is launched, it is carried out when the second network 12 is no longer accessible or when said network no longer optimally covers the localisation zone in which the mobile telephone station MS is located, as in the case of the intersection region 13 shown on Figure 2 or even when the mobile telephone station MS is located in the coverage field of the second network 12 and when said coverage is optimal.

The search continues with the aid of the network selection element PLMN2 in the subscriber identification module SIM. This element includes a set of network identities  $R_i$  of networks accessible to said mobile telephone station MS, said identities being placed in said element PLMN2 preferably by order of use. For example, the identities are network names or the codes MNC of the networks, each code being able to be associated with a country code. The file PLMN2 is the element for defining the first telecommunications network 11 as a priority network with respect to the second telecommunications network 12 and the other networks able to be accessible by the mobile telephone station MS.

As shown on figure 3, the first network 11 is first placed in the selection element PLMN2. Thus, for the partner account the first telecommunications network 11 is defined as a priority with respect to the second telecommunications network 12 and with respect to all those which could be accessible in the country 10. The priority network, here the first telecommunications network 11, is thus automatically selected when the mobile telephone station MS is located in the coverage field of said network 11, that is as soon as it enters said field of said first network 11, even if said

mobile telephone station MS is still located in the coverage field of the second network 12.

The partner account is then recorded in the first network 11 by means of the second identity IMS12. A temporary identity TIMSI is allocated to it. The mobile telephone station MS is thus recorded in said first network 11. The localisation information in the localisation element LOCI is updated and thus comprise the localisation element LAI of the zone covered by the first network 11 known as the nominal network.

Consequently, regular verification consists in verifying if the mobile telephone station MS entering the coverage field of the first telecommunications network is no longer activated.

It shall be noted that during a short call, this verification is not initiated so as avoid cutting off said conversation. Also verification is preferably only initiated every fifteen minutes.

However, so as to avoid additional costs due to the use of the partner account on the nominal network, tilting is effected onto the nominal account corresponding to the first network 11.

In a first stage, after an updating of the localisation element LOCI, a check is made to see if the mobile telephone station MS is clearly identified on the first network 11 with the aid of its second identity IMS12. Verification is effected using the localisation element LOCI of the module SIM. The codes of the localisation element LOCI are compared with those of the first identity IMS11, namely the codes MNC of the network and codes MCC of the country.

In a second stage, after having checked that the subscriber is clearly using his partner account on the

nominal network 11, the first identity IMS11 is activated.

To ensure this, the invention provides that the subscriber identification module SIM comprises an element ACTIV for activating an identity IMSI of the module SIM. This element is in particular a programme included in the non-rewriteable 23 or rewriteable 23 memories of the module SIM. In the case of figure 3, it is located in the non-rewriteable memory 24. In one non-restrictive embodiment, said activation element ACTIV corresponds to a selection of the file corresponding to an identity IMSI and an activation of all the attached files.

With the aid of the ACTIV activation element, the first identity IMS11 corresponding to the nominal account is activated, whereas the one that was activated previously, namely the second IMSI2, is disactivated.

Then an initialisation phase of the mobile telephone station MS clearly visible to the subscriber is relaunched using the initialisation command REFRESH, as described above. During said phase, authentication takes into account the active identity of the module SIM. The first identity IMS11 corresponding to the nominal account which is activated is thus retained for authentication. The search starts on the old network on which the mobile telephone station MS was recorded by means of the temporary identity TIMSI located in the localisation element LOCI. The old network is the first network 11. As the latter is accessible, it is selected and recording is made by means of the active identity IMS11. Thus, the nominal account is again used on the first telecommunications network 11 and the mobile telephone station MS is recorded with its first identity IMS11.

It shall be noted that prior to said initialisation,

the contents can be deleted from the localisation element LOCI. In this case, the search does not stop with the old network, but shall continue on the nominal network of the first identity IMS11 which is the first network 11 which shall be selected.

Advantageously, the average time for verification and account tilting is quite insignificant and less than a minute. Thus, incoming and outgoing calls can still be made as in the case when the subscriber manually changes accounts and networks changes.

According to the same principle as mentioned previously, the mobile telephone station MS leaves the coverage field of the first telecommunications network 11. Consequently, the subscriber identification module SIM is automatically identified on the second telecommunications network 12 under its second identity IMSI2, without requiring any action to be taken by the subscriber. The subscriber must not use any menu, change the SIM module or enter any code for identification to take place which takes place without being initiated by the subscriber.

With this end in view, the subscriber identification module SIM comprises a element CNTRL for controlling the coverage loss of a network. This element is in particular a programme included in the non-rewriteable 24 or rewriteable memories 23 of the module SIM. When the mobile telephone station MS leaves a network, said station generally updates the information by means of the localisation element LOCI. The updated information is for example the temporary identity TIMSI which is deleted or a coverage indication data item.

Also, a first non-restrictive embodiment of said control element consists of checking if the codes of the

LOCI localisation element and the active identity IMS11 are the codes MNC and MCC network of the country in question. A difference denotes a coverage loss of the network. A second embodiment consists of checking that a coverage indication 5 data item is located in the localisation element LOCI. This data item indicates if the coverage of the network is still active. In both embodiments, said control element CNTRL is activated by said module SIM after each updating of the information of the localisation element LOCI by the mobile 10 telephone station MS. A third embodiment consists in that the control element CNTRL is periodically activated by the module SIM, for example every fifteen minutes. In the first stage, said element CNTRL asks the mobile telephone station MS to send its localisation information corresponding to the 15 current localisation zone, and in a second stage compare said information with that of the first active identity IMS11. A difference denotes a coverage loss in the network. In this case, the control element CNTRL particularly uses a information command PROVIDELOCALINFO described for example 20 in the GSM standard 11.14 published by the ETSI.

Generally speaking, when the coverage of a network is lost and when the mobile telephone station MS enters the second network, said station tries to be recorded in the second network 12 with its active identity, here the first 25 identity IMS11. However, as it has no roaming agreement with said second network 12, said mobile telephone station MS cannot use the second network 12, the latter prohibiting recording of said mobile telephone station MS. Accordingly, the code MNC of said second network 12 is written in the 30 network prohibition element FPLMN (not shown). This network prohibition element FPLMN is a file inscribed in the rewriteable memory 23 of the module.

However, so as to be able to use this second network 12, when the coverage loss of the first network 11 is verified, said module SIM initiates the identity activation element ACTIV and thus activates the identity IMS12 corresponding to the partner account. The second network 12 is defined in the network selection PLMN12 element as a priority network with respect to the other networks and a secondary network with respect to the first network 11. The code MNC of the second network 12 is thus placed second in the file PLMN.

Then the mobile telephone station MS is re-initialised and visible to the user with the aid of the re-initialisation command REFRESH. The network search is firstly made by means of the localisation element LOCI. Either the former network is found to be the first network by virtue of the temporary identity TIMSI or said identity has been deleted. As the first network 11 is no longer accessible, in both cases the search is continued on the nominal network of the partner account IMSI2, namely the partner network, but does not end as said network does not cover the zone where the mobile telephone station MS is located. As a result, the search is carried with the PLMN2 networks selection element as a priority on the first network and then on the second network 12. As the first network no longer covers the zone where the mobile telephone station MS is located, the partner account is then recorded on the second network 12. The subscriber identification module SIM is thus identified on the second network 12 by means of its second identity IMS12. As the information of the localisation element LOCI has been updated automatically at the end of fifteen minutes, a regular check is initiated, said checking making it possible to determine if the mobile

telephone station MS enters the coverage field of the first network 11, and so on as seen earlier.

It shall be noted that during the phase for initialising the module SIM, a search is generally made in the networks prohibition FPLMN element corresponding to the active identity IMSI so as to know the networks to which access is impossible. In a first embodiment, a networks prohibition FPLMN element is attached to each identity IMSI, for example a first networks prohibition element FPLMN1 being attached to the first identity IMS11 and a second prohibition element FPLMN2 being attached to the second identity IMS12. In a second embodiment, a single prohibition element FPLMN is attached to several identities IMSI, for example a single prohibition element FPLMN being attached to the first and second identities IMS11, IMS12. In this second embodiment, so as to be able to use the second network 12, it is advantageous that simultaneously on activation of the second identity IMS12 corresponding to the partner account, the code of the second network 12 is deleted in said networks prohibition element FPLMN.

Furthermore, it shall be observed that generally a user of the mobile telephone station MS is able to change the order of preference of the use of networks in the networks selection element PLMN2. Thus, the first priority network 11 or the second network 12 can be found. Also advantageously, on each activation of an identity IMSI, defined in the networks selection element PLMN2 are simultaneously the first network 11 as a priority with respect to the second network 12 and the second network 12 as a priority with respect to the other networks able to cover the territory of the country 10. Thus, the networks selection element PLMN2 firstly includes at least the code MNC of the first network

11 and secondly at least the code MNC of the second network  
12.

5 Of course the invention is not merely limited to the list of implementation examples given above. The context of the invention extends to other embodiments in which said subscriber identification module SIM in particular can be identified on a large number of networks which are defined on a priority scale in one or several networks selection elements PLMN or also said module SIM comprises a large  
10 number of identities IMSL corresponding to various subscriber accounts.

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CLAIMS

- 10            1. Method for identifying a subscriber in a first (11) and second (12) telecommunications network according to which the subscriber possesses a mobile telephone station (MS) fitted with a subscriber identification module (SIM), said subscriber identification module including means to be identified on the first telecommunications network under a first identity (IMS11), as well as means to be identified on a second telecommunications network (12) under a second identity (IMS12), characterised in that said methods comprises the following stages according to which :
- 15            •        the first telecommunications network (11) is defined as a priority with respect to the second telecommunications network (12) ;
- 20            •        when the subscriber identification module (SIM) is identified in the second telecommunications network (12), a check is regularly made to see if the mobile telephone station (MS) is inside the coverage field of the first telecommunications network (11), said check being made by regularly re-initialising the mobile telephone station (MS),
- 25            •        the mobile telephone station (MS) is in the coverage field of the first telecommunications network (11) ;
- 30

• the subscriber identification module (SIM) is automatically identified in the first telecommunications network (11) under its first identity (IMS11) without requiring subscriber intervention.

5 2. Method according to claim 1, characterised in that the subscriber identification module (SIM) is automatically identified on the first telecommunications network (11), even if the mobile telephone station (MS) is still located in the coverage field of the second network (12).

10 3. Method according to one of the preceding claims, characterised in that verification is initiated by a command or programme in the subscriber identification module (SIM), said programme comprising a re-initialisation command (REFRESH) .

15 4. Method according to one of the preceding claims, characterised in that it comprises an additional stage according to which :

20 • prior to said re-initialisation, the contents of a localisation element (LOCI) in said module (SIM) are deleted.

5. Method according to one of the preceding claims, characterised in that it comprises the additional stages according to which :

25 • the mobile telephone station (MS) leaves the coverage field of the first telecommunications network (11),

• the subscriber identification module (SIM) is automatically identified in the second telecommunications network (12) under its second identity (IMS12) without action needing to be taken by the subscriber.

30 6. Method according to claim 5, characterised in that the stage for automatically identifying the module (SIM) with the second network (12) under its second identity

(IMS12) comprises the additional stages according to which :

- a loss of coverage of the first network (11) is observed,
- by means of said module (SIM) an identity activation element (ACTIV) is initiated and thus the second identity (IMS12) is activated,
- said mobile telephone station (MS) is reinitialised.

7. Method according to claim 6, characterised in that it comprises an additional stage according to which :

- prior to said re-initialisation, the second network (12) is defined in a networks selection element (PLMN2) as a priority with respect to other networks and as secondary with respect to the first network (11).

8. Method according to claim 6, characterised in that the loss of coverage is established by means of a loss of coverage control element (CNTRL).

9. Method according to claim 8, characterised in that the loss of coverage control element (CNTRL) is initiated after each information updating of a localisation element (LOCI) by the mobile telephone station (MS).

10. Method according to claim 8, characterised in that said control element (CNTRL) is initiated periodically by said module (SIM).

11. Method according to claim 10, characterised in that said control element (CNTRL) uses an information command (PROVIDELOCALINFO).

12. Method according to one of the preceding claims, characterised in that the stage for automatically identifying the module (SIM) on the first telecommunications network (11) under its first identity (IMS11) comprises the additional stages according to which :

• the subscriber identification module (SIM) is identified in the first telecommunications network (11) by means of the second identity (IMS12),

5 • a check is made to see if the subscriber identification module (SIM) is identified on the first network (11) by means of its second identity (IMS12),

• the first identity (IMS11) is activated,  
• a phase for reinitialising the mobile telephone station (MS) is relaunched.

10 13. Method according to claim 12, characterised in that verification is effected with the aid of an element (LOCI) for localising the module (SIM).

15 14. Method according to one of the preceding claims, characterised in that re-initialisation is visible to the user.

20 15. Method according to one of the preceding claims, characterised in that the first telecommunications network (11) is defined as priority with respect to the second telecommunications network (12) by means of a networks selection element (PLMN2).

16. Method according to one of the preceding claims, characterised in that the phase for initialising the mobile telephone station (MS) comprises a phase for initialising the module (SIM) and a phase for recording on a network.

25 17. Subscriber identification module (SIM) intended to be associated with a mobile telephone station (MS) including :

• means to be identified on a first telecommunications network (11) under a first identity (IMS11),

30 • means to be identified on a second telecommunications network (12) under a second identity

(IMS12), and

characterised in that it further includes :

• means to define the first telecommunications network (11) as priority with respect to the second telecommunications network (12),

• means to regularly check if the mobile telephone station (MS) enters the coverage field of the first network (11) when the subscriber identification module (SIM) is identified on the second telecommunications network (12) under its second identity (IMS12), said checking means being able to regularly reinitialise the mobile telephone station (MS),

• means to ensure said subscriber identification module (SIM) is automatically identified on the first telecommunications network (11) under its first identity (IMS11) when the mobile telephone station (MS) enters the coverage field of the first telecommunications network (11).

18. Subscriber identification module (SIM) according to claim 17, characterised in that the identification means are able to identify said subscriber identification module (SIM) automatically without the need for subscriber intervention in the first telecommunications network (11) under its first identity (IMS11) when the mobile telephone station (MS) enters the coverage field of the first telecommunications network (11), even if the mobile telephone station (MS) is still located in the coverage field of the second network (12).

19. Subscriber identification module (SIM) according to claim 17 or 18, characterised in that said checking means are initiated by a command or programme in the subscriber identification module (SIM), said programme comprising a re-initialisation command (REFRESH).

20. Subscriber identification module (SIM) according to one of claims 17 to 19, characterised in that it comprises means for deleting the contents of a localisation element (LOCI) included in the module (SIM).

5 21. Subscriber identification module (SIM) according to one of claims 17 to 20, characterised in that it comprises means to be automatically identified in the second network (12) under its second identity (IMS12) without requiring any user intervention.

10 22. Subscriber identification module (SIM) according to one of claims 17 to 21, characterised in that it comprises an element (ACTIV) for activating an identity (IMSI).

15 23. Subscriber identification module (SIM) according to one of claims 17 to 22, characterised in that it comprises a networks selection element (PLMN2) able to define the second network (12) as priority with respect to other networks and secondary with respect to the first network (11).

20 24. Subscriber identification module (SIM) according to one of claims 17 to 23, characterised in that it comprises a loss of coverage control element (CNTRL) of a network.

25 25. Subscriber identification module (SIM) according to claim 23, characterised in that the loss of coverage control element (CNTRL) is able to be initiated after each information updating of a localisation element (LOCI) by the mobile telephone station (MS).

26. Subscriber identification module (SIM) according to claim 23, characterised in that the loss of coverage control element (CNTRL) is able to be initiated periodically by said module (SIM).

30 27. Subscriber identification module (SIM) according to claim 25, characterised in that the loss of coverage control element (CNTRL) uses an information command (PROVIDELOCALINFO).

1/2

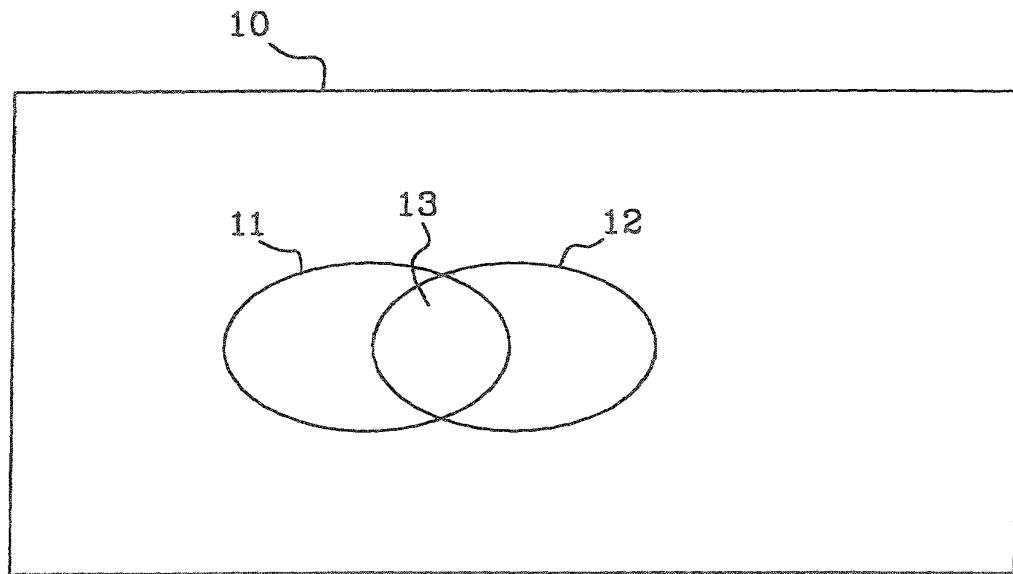


FIG.1

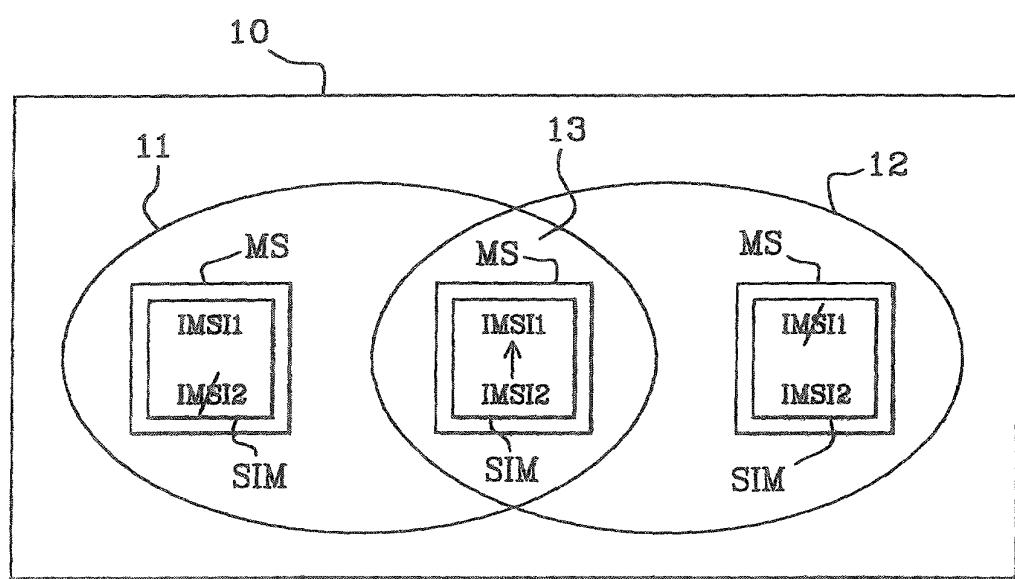


FIG.2

2/2

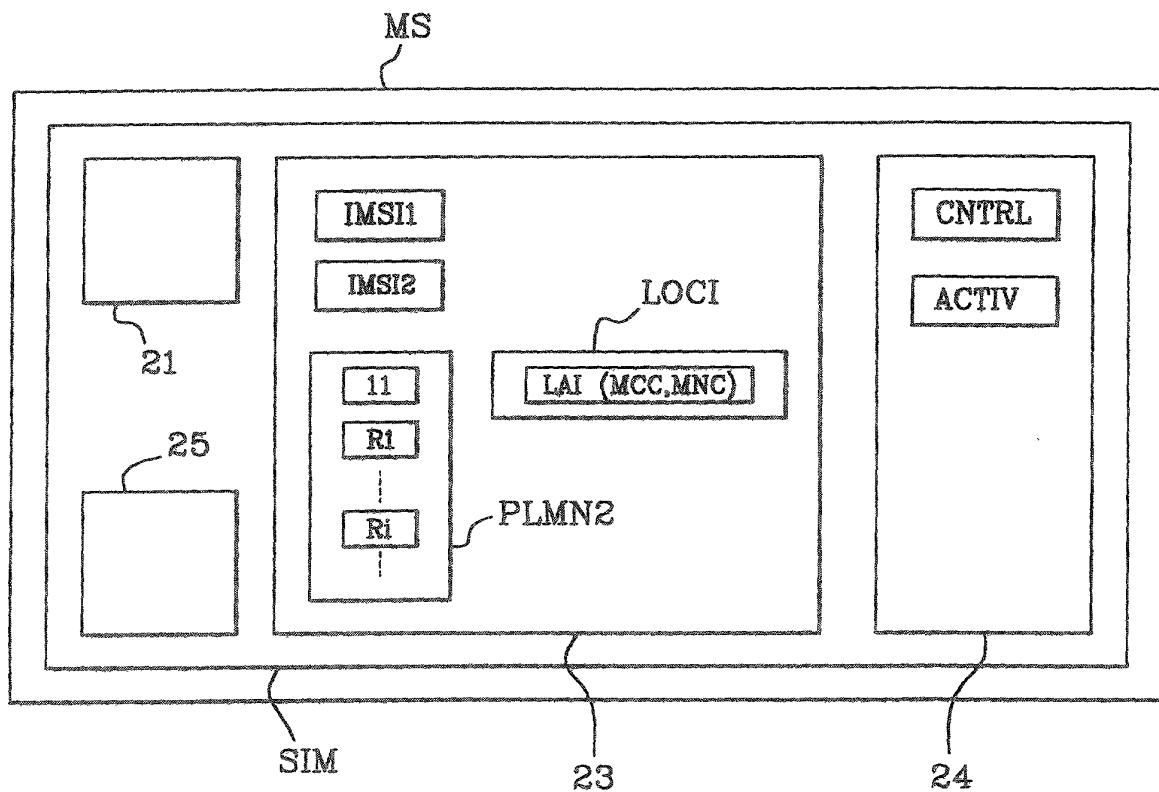


FIG.3

## ABREGE

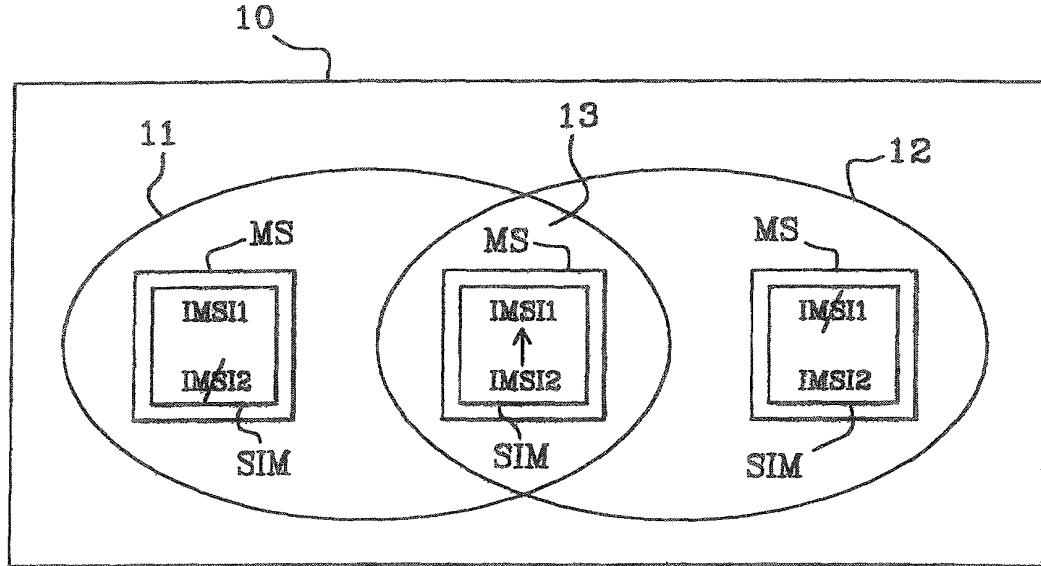


FIG.2

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**DECLARATION FOR UTILITY OR  
DESIGN  
PATENT APPLICATION  
(37 CFR 1.63)**

Declaration Submitted with Initial Filing

OR

Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)

|                          |                 |
|--------------------------|-----------------|
| Attorney Docket Number   | 09669/006001    |
| First Named Inventor     | BONGERS René    |
| <b>COMPLETE IF KNOWN</b> |                 |
| Application Number       | 09 / 913, 819   |
| Filing Date              | August 17, 2001 |
| Group Art Unit           |                 |
| Examiner Name            |                 |

As a below named inventor, I hereby declare that:

My residence, mailing address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

MODULE AND IDENTIFICATION METHOD IN A FIRST AND SECOND  
TELECOMMUNICATION NETWORKS.

(Title of the Invention)

the specification of which

is attached hereto

OR

was filed on (MM/DD/YYYY) 08/17/2001 as United States Application Number or PCT International

Application Number 09/ 913, 819 and was amended on (MM/DD/YYYY)   (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

| Prior Foreign Application Number(s) | Country | Foreign Filing Date (MM/DD/YYYY) | Priority Not Claimed   | Certified Copy Attached?  |
|-------------------------------------|---------|----------------------------------|--|---|
|                                     |         |                                  | YES  | NO  |
| 99/ 02034                           | France  | 02/ 18/ 1999                     | <input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/> | <input type="checkbox"/><br><input type="checkbox"/><br><input checked="" type="checkbox"/><br><input type="checkbox"/> |

Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

[Page 1 of 2]

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**NAME OF SOLE OR FIRST INVENTOR :**  A petition has been filed for this unsigned inventor

Given Name  
 (first and middle [if any])

René

Family Name  
 or Surname

BONGERS

Inventor's  
 Signature

Date 26 Sept. 2001

Residence: City

Hardinxveld

State

Netherlands  
 CountryNetherlands  
 Citizenship

Mailing Address

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FRX

City

Montrouge Cedex

State

92542

France

Country

**NAME OF SECOND INVENTOR:** A petition has been filed for this unsigned inventor

Given Name  
 (first and middle [if any])

Family Name  
 or Surname

Inventor's  
 Signature

Date

Residence: City

State

Country

Citizenship

Mailing Address

City

State

ZIP

Country

Additional inventors are being named on the \_\_\_\_\_ supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto.

Please type a plus sign (+) inside this box →

PTO/SB/81 (02-01)

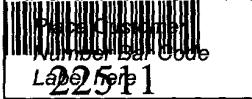
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|------------------------|------------------------------|
| Application Number     | 09/ 913, 819                 |
| Filing Date            | August 17, 2001              |
| First Named Inventor   | René BONGERS                 |
| Title                  | Module and identification... |
| Group Art Unit         |                              |
| Examiner Name          |                              |
| Attorney Docket Number | 09669/006001                 |

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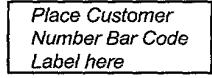
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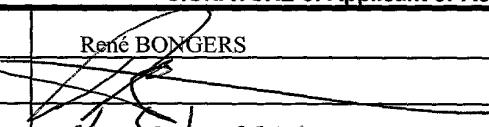
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I am the:

- Applicant/Inventor.  
 Assignee of record of the entire interest. See 37 CFR 3.71.  
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

### SIGNATURE of Applicant or Assignee of Record

Name René BONGERS

Signature 

Date 16 Sept. 2001

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

\*Total of \_\_\_\_\_ forms are submitted.

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